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REMARKS

Claim Status

     Claims 1-9, 11-20, 22 and 23 remain pending in the present application. Claims 1, 12 and 13 are amended without prejudice.

     Claim 21 is canceled without prejudice and to merely reduce issues in this amendment. We reserve the right to present this and similar claims in one or more continuing applications.

     Dependent claims 22 and 23 are newly presented.

Rejections

     The Examiner has renewed the rejection of claims 1-3, 11-14, 16, 20 and 21 over the Background section of the subject application. Claims 4-9 and 15 stand rejected as being unpatentable over the Background. Claims 17 and 19 stand rejected as being anticipated by U.S. Patent No. 5,652,626 (Kawakami). Claim 18 stands rejected as being unpatentable over Kawakami in view of the Background.

     Applicants respectfully traverse these rejections.

Response to the Rejections

Background of the Invention

     We note with some curiosity the Examiner's third (3rd) point on page 2, last paragraph, of the Office Action.

     The Examiner suggests that **page 2**, lines 13-14 of the present specification discuss projecting color changes onto a luminance axis along a particular color axis.

     And on page 3, lines 1-2, of the Office Action, the Examiner points to **page 2**, lines 16-17 of the present specification.

     But these page and lines correspond to the **Summary of the Invention**, and not the Background section.

     We ask that the Background of the Invention rejection be removed.

Claim 2

Claim 2 recites among other features a filter for calculating a value of each pixel along a preferred projection axis.

The preferred projection axis corresponds to a direction of embedding **determined based on** color characteristics of at least some pixels associated with each pixel.

The Background seems to suggest a default or automatic detection strategy, where luminance is determined by projecting color changes onto a luminance axis (see, e.g., page 1, lines 24-25), regardless of color characteristics of associated pixels.

In contrast, claim 2 recites that a projection axis corresponds to a direction of embedding determined based on color characteristics of at least some pixels associated with each pixel.

We respectfully request that claim 2 be allowed.

New Claim 22

Newly presented claim 22 further defines the method of claim 2. This claim recites that the preferred projection axis is determined based on color characteristics of at least some pixels associated with each pixel and **not** through a predetermined projection axis.

Favorable consideration is requested.

New Claim 23

Claim 23 specifies that the predetermined projection axis of claim 22 comprises a luminance axis.

(Claims 22 and 23 specifically address the Examiner's first and second points on page 2, paragraph 3, of the Office Action. Claim 23 specifically addresses a luminance axis. These claims recite methods that will not simply default to a luminance axis (claim 23), but instead will determine a suitable projection axis through an analysis of color characteristics.)

Favorable consideration is requested.

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Claim 1

Claim 1 now recites, in combination with other features, projecting color values of each pixel onto a preferred projection axis that is *adaptively* determined by examining color of at least some of the pixels surrounding each pixel, wherein the preferred projection is determined from said examining and not through selection of a predetermined projection axis without an examination.

The amendment helps to emphasize that the preferred projection axis is determined adaptively, and not simply through defaulting to some predetermined axis without an examination.

We respectfully request that claim 1 be allowed.

Claim 12

Analogous to claim 1, claim 12 recites, in combination with other features, means for adaptively filtering a color image to project color components of each pixel to a preferred projection axis.

The term "adaptively" has been added to claim 12 to help emphasize that the filtering is not a default selection, as suggested in the background. Instead, the filtering to a preferred projection axis takes into account local color content of the color image.

The Background is silent in this regard.

Claim 12 should be allowed.

Claim 13

Claim 13 recites, in combination with other features, filtering a color image to generate filtered data by projecting color values of each pixel onto a selected axis that is determined by examining color of surrounding pixels and not through filtering with a predetermined process without an examination of the color values.

In claim 13 the selected projection axis is determined by examining color of surrounding pixels, and not through some default process.

Claim 13 stands ready for allowance.

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Claims 3 and 11

Claim 3 recites, in combination with other features, projecting color values of each particular pixel to a preferred projection axis, the preferred projection axis being determined by <u>averaging at least some color values of pixels in an area adjacent</u> to a particular pixel.

The cited portions of the Background (see 1/11/05 Office Action, page 3, last paragraph) do not discuss such a combination including averaging color values of pixels to help determine a preferred projection axis in the manner recited in claim 3.

Claim 11 recites, in combination with other features, a filter which projects a set of numbers representing color of each pixel onto a preferred projection axis by averaging color values of pixels of a particular area.

Again, the Background does not discuss averaging color values to help project onto a preferred projection axis in the manner recited in claim 11.

We respectfully request that claims 3 and 11 be allowed.

·Claim 20

Claim 20 recites <u>approximating</u> a <u>plurality of color directions</u> that a digital ·· watermark is likely embedded along through analysis of a plurality of local color characteristics of the image, and searching for the digital watermark in the approximated color directions.

The cited Background sections are not understood to teach or suggest at least searching for a digital watermark in a plurality of color directions.

Our position is not even addressed or refuted in the Office Action. Favorable reconsideration is requested.

Claim 20 stands ready for allowance.

<u>*Kawakami*</u>

The cited passages of Kawakami are not understood to teach or suggest the combinations recited in claims 17 and 19.

Claim 17

Claim 17 recites inserting a first watermark in an image in a first color direction, wherein the first color direction is determined, at least in part, through consideration of localized color characteristics associated with different sets of pixels in the image; and inserting a second watermark in a color direction that is orthogonal to the first color direction, in combination with the other claim features.

The Kawakami reference is not understood to determine a color direction through at least consideration of localized color characteristics associated with different set of pixels in an image. The cited equations (37-39) and passages (Cols. 17-18) are not understood to determine a color direction based on localized color characteristics, et al.

Thus, Kawakami is not understood to teach or suggest the combination recited in claim 17. (The many other deficiencies of Kawakami need not be belabored at this time.).

Claim 19 is also believed to recite patentable combinations.

Favorable consideration is respectfully requested.

Kawakami in view of the Background

Claim 18

The cited passages of Kawakami in view of the Background are not understood to teach or suggest the combination recited in claim 18.

For example, claim 18 recites two distinct projections, and two distinct readings, all in the same combination.

The particular combination of features is not discussed in the cited reference.

We respectfully request that claim 18 be allowed.

Remaining Claims

The remaining claims are also believe to recite patentable combinations.

For example, claim 14 recites determining a direction of a selected axis by examining color value of pixels in an area associated with each pixel (e.g., as opposed to some automatic default direction).

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And claim 16 recites examining color values of predetermined pixels, wherein the values are used to determine a direction of the axis.

Favorable consideration is respectfully requested.

Conclusion

The application is believed to be in condition for allowance. An early notice of allowance is respectfully requested. Nevertheless, the Examiner is invited to telephone the undersigned at 503-469-4685 if any issue remains.

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Respectfully submitted,

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